

IN THE CLAIMS

Please amend claims 22 and 25 as follows.

1-18. (Canceled)

19. (Previously Presented) An integrated circuit comprising:

a first device;

a second device;

a contact coupling the first device to the second device, wherein the contact includes a first barrier and a second barrier that are electrically conductive, the first barrier restricts electrode oxidation and the second barrier restricts atomic migration from or to a substrate; and a barrier structure encircling the contact and the first and second barriers.

20. (Original) The integrated circuit of claim 19, wherein the first device is a capacitor.

21. (Original) The integrated circuit of claim 19, wherein the second device is a transistor.

22. (Currently Amended) An integrated circuit comprising:

a first device;

a second device;

a first layer coupling the first device to the second device capable of blocking oxygen atom migration;

a second layer coupling the first device to the second device capable of blocking substrate atom migration; and

a structure encircling the ~~one or more~~ first and second layers, and the first and second ~~one or more~~ layers are electrically conductive.

23. (Original) The integrated circuit of claim 22, wherein the first device is a capacitor.

24. (Original) The integrated circuit device of claim 22, wherein the second device is a MOSFET.
25. (Currently Amended) An integrated circuit comprising:
a first device;
a second device;
a first layer coupling the first device to the second device capable of blocking silicon atom diffusion;
a second layer coupling the first device to the second device capable of blocking oxygen atom migration; and
a structure encircling ~~at least two of~~ the first and second ~~one or more~~ layers, and ~~at least two of~~ the first and second ~~one or more~~ layers are electrically conductive.
26. (Previously Presented) The integrated circuit of claim 25, wherein the first and second layers and the structure cooperate as three layers.
27. (Original) The integrated circuit of claim 25, wherein the structure is fabricated from an oxide.
28. (Previously Presented) An integrated circuit comprising:
a first device;
a second device;
a multilayer contact including ruthenium silicide used as an oxygen barrier and an atomic substrate migration barrier, the multilayer contact coupling the first device to the second device;
and
an oxide ring encircling the ruthenium silicide and the atomic substrate migration barrier, wherein the ruthenium silicide and the atomic substrate migration barrier are electrically conductive.

29. (Previously Presented) The integrated circuit of claim 28, wherein the atomic substrate migration barrier includes a polysilicon layer.
30. (Original) The integrated circuit of claim 29, wherein the polysilicon layer is separated from the oxide ring by an air gap.
31. (Previously Presented) An integrated circuit comprising:
a first device;
a second device;
one or more layers coupling the first device to the second device, at least one of the one or more layers is capable of blocking oxygen atom migration and at least one of the one or more layers is capable of restricting atomic substrate migration; and
an oxide ring structure encircling at least two of the one or more layers, which are electrically conductive.
32. (Original) The integrated circuit of claim 31, wherein at least one of the one or more layers is fabricated from a tungsten nitride.
33. (Original) The integrated circuit of claim 32, wherein the oxide ring structure is in contact with the tungsten nitride.
34. (Previously Presented) An integrated circuit comprising:
a first device;
a second device;
one or more layers electrically coupling the first device to the second device, at least one of the one or more layers is capable of blocking the diffusion of silicon and at least one of the one or more layers is capable of restricting oxygen atom migration; and
an oxide ring structure encircling at least one of the one or more layers, which is electrically conductive.

35. (Original) The integrated circuit of claim 34, wherein at least one of the one or more layers is ruthenium silicide.

36. (Original) The integrated circuit of claim 34, wherein the second device is an active device.

37-93. (Canceled)

94. (Previously Presented) An integrated circuit comprising:
a first device;
a second device;
a contact coupling the first device to the second device, the contact coupling including a first barrier for restricting oxygen migration and a second barrier for restricting substrate atom migration; and
a barrier structure of silicon nitride encircling the contact and the first and second barriers, which are electrically conductive.

95. (Previously Presented) The integrated circuit of claim 94, wherein the first device is a capacitor.

96. (Previously Presented) The integrated circuit of claim 94, wherein the second device is a transistor.

97. (Previously Presented) An integrated circuit comprising:
a first device;
a second device;
one or more layers coupling the first device to the second device, at least one of the one or more layers including platinum-iridium, which restricts oxygen atom migration, and at least one of the one or more layers restricting substrate atom migration; and

a structure encircling the one or more layers, where the one or more layers are electrically conductive.

98. (Previously Presented) The integrated circuit of claim 97, wherein one of the one or more layers comprises a layer of tungsten nitride having a thickness of between about 900 angstroms and 1100 angstroms.

99. (Previously Presented) The integrated circuit device of claim 97, wherein the second device is a bipolar transistor.

100. (Previously Presented) An integrated circuit comprising:

a first device;

a second device;

one or more layers coupling the first device to the second device, at least one of the one or more layers including platinum-rhodium, which restricts oxygen atom migration, and at least one of the one or more layers restricting substrate atom migration; and

a structure encircling at least two of the one or more layers, which are electrically conductive.

101. (Previously Presented) The integrated circuit of claim 100, wherein the one or more layers includes a polysilicon layer.

102. (Previously Presented) The integrated circuit of claim 100, wherein the first device is formed in a substrate, the substrate selected from a group consisting of silicon, germanium, gallium-arsenide, and silicon-on-sapphire.